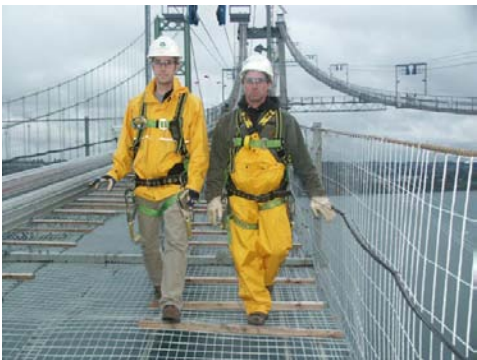




New Living War Memorial Park with view of the Narrows.



Trial assembly of bridge truss, South Korea



WSDOT bridge inspectors inspecting cable on north catwalk.



Landscaping near the toll plaza.



**The original Living War Memorial Park**

Shortly after the second Tacoma Narrows Bridge was built, civic leaders led a community effort to build a memorial park honoring war veterans. The steering committee included representatives from almost every civic, service, fraternal, and military organization in Tacoma. On November 11, 1952, Armistice Day, dedication ceremonies for the memorial honored the sacrifices of Tacoma area military men and women. Volunteers did all the work to build the 2.5-acre park. It included a grassy park, a monument to the USS Copahée, a WW II escort carrier built in Tacoma; and an 800-pound bronze bell from the USS Tacoma, a 1903 ship named after the city. Farmers donated flower bulbs, sailors from the nearby Naval base built a parking area, and the Tacoma Bricklayers and Hod Carrier's Union built the 20-foot stone monument shown in the photo above. The site was deeded to the city by the Young Men's Business Club, which had been given the property by Harold W. Woodworth.

**Public Outreach**

- Held toll workshops in Silverdale, Port Orchard, Tacoma and Key Center to solicit community input about toll business practices.
- Gave project presentations to Rainier Lions Club, North Thurston Kiwanis, University Place Kiwanis.
- Delivered NEPA/SEPA environmental documents specific to a new ramp at 24th Street NW to Gig Harbor and Tacoma libraries.
- Gave bridge presentations to 8th graders from Ridgetop Junior High School.
- Presentations were given to Russell Investment Group, the Washington Society of Professional Engineers, and Lockheed Martin.



Toll Operations Building

**Toll Operations**

**November**

- Held four Public Workshops regarding toll business practices in Silverdale, Port Orchard, Tacoma and Lakebay
- Finalized ad hoc test procedures for Factory Acceptance Testing

**December**

- Complete Toll Systems Operations Agreement
- Toll Study interim report to be published
- Conduct tolls briefing for the Washington Trucking Association's Executive Board in South Center
- Toll Workshop Survey to be posted on website
- Installation of tolling system hardware to begin

Preparation for the commencement of tolling is progressing on schedule

**WSDOT Tacoma Narrows Bridge Office**  
3214 50th Street Court NW, Suite 302  
Gig Harbor, WA 98335  
Phone: 1-877-7NARROW or (253) 534-4640

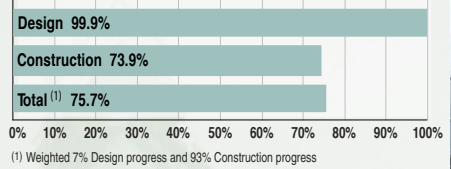
Rick Singer, Business Manager, 253-534-4647

Filiz Satir, Community Outreach (253) 534-4670  
Claudia Cornish, Media Relations (253) 534-4646

For more information about the bridge project, visit the TNB web site:  
[www.tacomanarrowsbridge.com](http://www.tacomanarrowsbridge.com)



**Progress to Date**  
(% Complete)



**New Bridge Statistics:**

- Bridge Length:**  
5,400 ft. *(overall)*
- Main Span:**  
2,800 ft. *(tower to tower)*
- Deck Panels:**  
46 sections, 120 ft. by 78 ft. *(each)*
- Tower Height:**  
510 ft. tall  
8,500 cubic yds. concrete *(per tower)*
- Tower Foundations or Caissons (each):**
  - 1.7 million lbs. steel *(total)*
  - 850,000 lbs. steel *(base or cutting edge)*
  - 6 million lbs. rebar
  - 30,000 cubic yards concrete
- Anchorage (each):**
  - 20,600 cubic yards concrete
  - 900,000 lbs. rebar
  - 90 million lbs. *(total weight)*

**Cable Diameter:** 20.5 inches  
**Steel Bundles per Cable:** 19

**Wires per Bundle:** 464  
**Structural Steel:**  
35.5 million lbs. *(excludes weight of cables)*  
49.7 million lbs. *(all steel excluding towers)*

**New Parallel Bridge Completed:**  
Early 2007  
**1950 Bridge (Retrofit) Completed:**  
Early 2008

# Tacoma Narrows Bridge Project

## Monthly Progress Report

November 2005



Workers clamping completed strand on north catwalk. Bridge deck progress in South Korea

**The new Living War Memorial Park is completed.**

**IN** November the Tacoma Narrows Bridge project completed relocation of the Living War Memorial Park to the southwest corner of Jackson Avenue NW just off of SR16. Originally built in 1952 and located adjacent to the existing bridge's east anchorage, the park was built as a memorial to fallen service men and women. The original park sat in the path of the alignment of the proposed new bridge and the location of the new bridge's east anchorage. To relocate the park, the project was challenged with finding an appropriate site that would still serve the same neighborhood. With the assistance of the general public, an ad hoc committee of local citizens studied several sites in the West End area of Tacoma, and chose the Olympic Greenway site as the new home for the park. Relocation of the park allowed for use of an existing relatively unused public open space, which provided more visibility of the park as well as an opportunity to expand and enhance it.

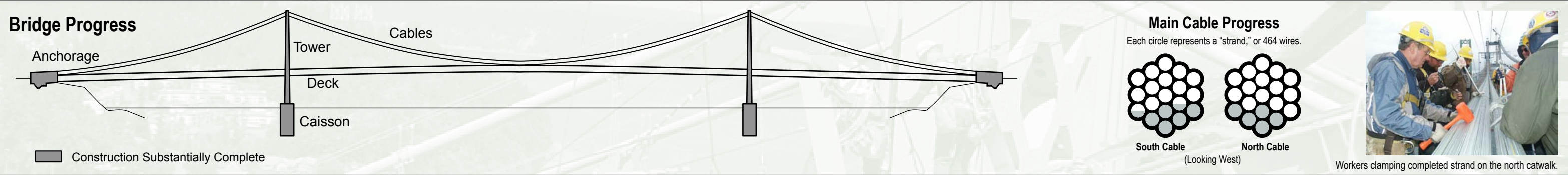
Before officials broke ground on the new bridge in October 2002, the original park memorials were dismantled and put in storage. In September 2005 the monuments were taken out of storage and reinstalled at the new 3.5-acre park. In addition to re-installing the original monuments and plaques, the park has new features; a Narrows lookout, a memorial garden, interpretive information, and a loop trail designed to be linked to the future SR 16 trail planned by the city. At the new park, visitors will be able to walk or ride bikes on paved perimeter pathways bordered



by flowering cherry trees. Visible to the approaching freeway is the new flagpole, a focal point of the new park. The park will open once the City of Tacoma takes possession of it. A park rededication ceremony is planned for Saturday, May 13, 2006. *(More on the park on the back page.)*

New Living War Memorial Park dedication shelter with bell from 1903 USS Tacoma.





## Bridge Progress

In mid-November, Tacoma Narrows Constructors (TNC) discovered corrosion on some of the wire coils awaiting future use in the bridge’s main suspension cables. The entire inventory of stored wire is being inspected to assure that only wire meeting contract specifications is used in the cable. TNC is ordering more wire to replace any wire discovered to not meet specifications. No out-of-spec wire has been placed on the bridge. Schedule impacts will be evaluated once the full extent of the corrosion is determined.

As of the end of November, TNC had completed spinning strands #2, 3, 4 and 5 for both the north and south cables and had begun strands #6 and 7 on the south cable.

TNC also removed the wind struts on both towers and continued working on the ladder access in the Gig Harbor tower.

Bridge activities scheduled for December include:

- Continue spinning operations
- Continue concrete pours for post tensioning block outs
- Continue installing ladder access in Gig Harbor elevator tower.

## Milestone Summary

Milestone	Contract	TNC	Months Ahead
Complete toll facility construction	08 Dec 05	29 Sep 05	2.3
Lift first bridge deck unit	07 May 06	20 Mar 06	1.6
Complete superstructure joining of deck sections	03 Dec 06	31 Aug 06	3.1
Complete new bridge and open to traffic	02 Apr 07	02 Apr 07	0.0
Complete existing bridge modifications	26 Feb 08	26 Feb 08	0.0

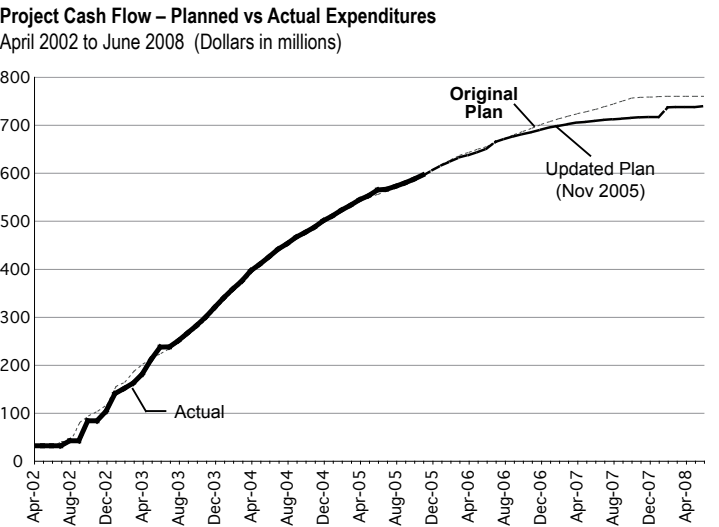
## Roadway/Roadside Progress

Roadway activities in November included completing work at Living War Memorial Park, continuing seismic retrofit of the existing bridge, and landscaping. Landscaping has progressed rapidly, with many of the areas of the project fully landscaped now. TransCore moved into the Toll Operations building and are in the process of testing of the electronic components of the toll collection system.

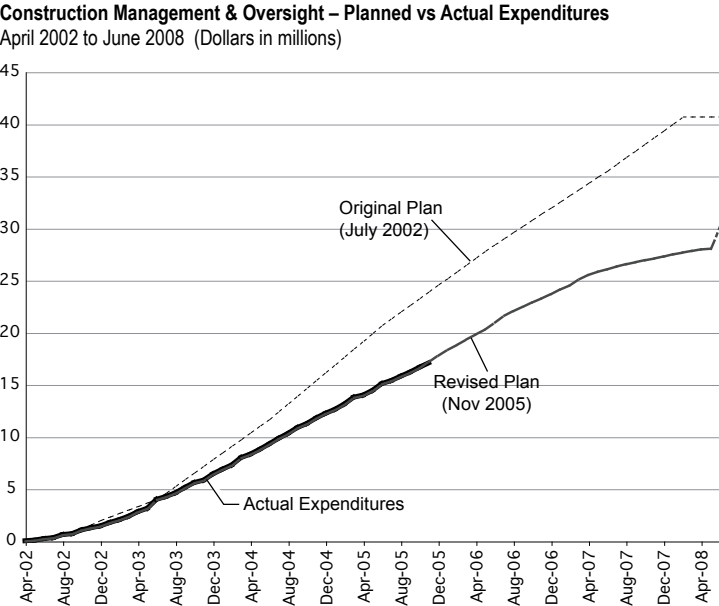
In December crews will focus on completion of landscaping, maintaining erosion control measures, and seismic retrofit work on the existing bridge. TransCore is scheduled to begin installation work in the mid December, with the first pieces of the Toll Collection system in by the end of the year.

## Financial Status

Project Cost Summary (in Millions)	Budgeted	Expended
Design-Build Contract	\$615.0	\$520.7
Toll System Contract	9.2	5.8
WSDOT Oversight	41.0	18.1
Contingencies Committed	12.9	10.0
Contingencies Remaining	41.7	
Phase I Dev. Cost (UIW)	40.5	39.8
Total	\$760.4	\$594.5
Total Expended/Total Cost	78.2%	



## WSDOT Construction Management

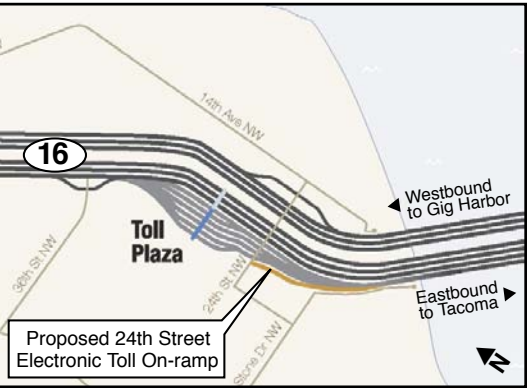


## Environmental Performance

WSDOT is considering a new on-ramp at 24th Street that would provide an additional access to eastbound SR 16, essentially replacing pre-construction access at that location. Use of the ramp would be limited to electronic transponder holders only. The decision to go forward on building the proposed new on-ramp will be based on an environmental evaluation as well as engineering and cost considerations.

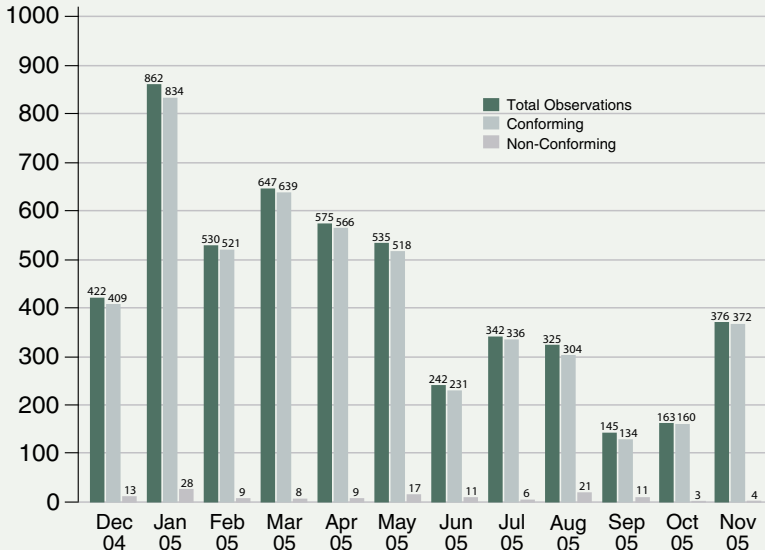
In November, the project obtained approval from the Federal Highway Administration of the environmental documents necessary to allow the proposed on-ramp at 24th Street. The National Environmental Policy Act (NEPA) Re-evaluation and state Environmental Policy Act (SEPA) Addendum to the project’s environmental impact statement concluded that the proposed on-ramp, the adjoining pedestrian and bicycle path, and an added fourth lane on the bridge would not result in new significant adverse environmental impacts.

Additionally, there was one environmental incident in the month of November. The project had a one-time discharge of turbid construction stormwater to the Narrows which exceeded the permitted effluent limit.



## Quality Performance

During November, WSDOT staff completed the following audits:



WSDOT employs a Compliance Audit System to ensure that work on the project conforms to contract requirements. Compliance audits are conducted regularly in two areas: construction activities occurring in the field, and management policies and systems designed to ensure a quality product.

Compliance Audit System findings for the month of November are as follows;

- 24 individual audits of design/builder work activities
- 376 contractual requirements observed and verified for compliance
- 4 non-conformance findings
- 24 total outstanding non-conformance findings

The 24 outstanding non-conformances are within normal expectations for a project of this size. WSDOT continues to actively resolve the non-conformance issues with the design-builder. The overall audit findings continue to indicate the construction work is complying with contract requirements.

## Safety Performance

2,016,587 hours worked with one lost time accident.

November-05	Hours Worked	Recordable Cases	LWD Cases	Lost Workdays	Restricted Cases	Restricted Days	Fatalities
TNC	47,741	2	0	0	0	4	0
WSDOT	5,448	0	0	0	0	0	0
Total	53,189	2	0	0	0	4	0
Project to Date							
TNC	1,806,366	21	1	22	5	190	0
WSDOT	210,221	0	0	0	0	0	0
Total	2,016,587	21	1	22	5	190	0

The two recordable cases were a worker who bruised a foot when a wire reel fell, and a worker who fractured two ribs after tripping and falling against wire reels.